



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: H. Adachi et al. : Art Unit:  
 Serial No.: 09/867,910 : Examiner:  
 Filed: May 30, 2001 :  
 FOR: TRANSMITTING CIRCUIT :  
 APPARATUS

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 AUG 06 2001  
 Technology Center 2600  
 #137A  
 L.M.L. Auckel  
 8.19.02

## SUPPLEMENTAL PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
 Washington, D.C. 20231

S I R :

Prior to examination, please amend the above-identified application  
 as follows:

CLAIMS:

Please add the following new claims:

~~18.~~ (Newly Added) A method of transmitting a signal comprising  
 the steps of:

(a) receiving baseband I and Q multi-valued digital signals, each  
 signal represented by n-bits;

(b) converting each of the signals received in step (a) into digital I  
 and Q signals, respectively, represented by less than n-bits;

(c) modulating the converted digital I and Q signals of step (b) using  
 a quadrature modulator; and

(d) transmitting the modulated signals of step (c).

19. (Newly Added) The method of claim 18 in which step (b)  
 includes representing each of the digital I and Q signals by two-bits.